

FAQ's Regarding Economic Impact Assessment

What is economic impact?

Economic impact begins when an organization spends money. Economic impact studies measure the direct economic impact of an organization's spending, plus additional indirect spending in the economy as a result of direct spending. Economic impact has nothing to do with dollars collected by institutions, their profitability, or even their sustainability, since all operating organizations have a positive economic impact when they spend money and attract spending from outside sources.

Direct economic impact measures the dollars that are generated within the state of operation due to the presence of the organization. This includes not only spending on goods and services with a variety of vendors within the state, and the spending of its employees and visitors, but also the economic activity generated by businesses within the state that benefit from the organization's spending. It is important to remember that not all dollars spent by the organization stay within the state. Dollars that "leak" out of the state in the form of purchases from out-of-state vendors are not included in the economic impact on the state.

The total economic impact includes the "multiplier" of spending from companies that do business with the organization. Support businesses may include medical suppliers, food vendors, restaurants, construction firms, temporary agencies, etc. Spending multipliers attempt to estimate the ripple effect in the state economy where the spending occurs. For example: spending by a hospital campus with local vendors provides these vendors with additional dollars that they re-spend in the local economy, causing a "multiplier effect." Spending by a hospital's employees supports local businesses.

What is the multiplier effect?

Multipliers are a numeric way of describing the secondary impacts stemming from the operations of an organization. For example, an employment multiplier of 1.8 would suggest

that for every 10 employees hired in the given industry, eight additional jobs would be created in other industries, such that 18 total jobs would be added to the given economic region.

The Multiplier Model is derived mathematically using the input-output model and Social Accounting formats. The Social Accounting System provides the framework for the predictive Multiplier Model used in economic impact studies. Purchases for final use drive the model. Industries that produce goods and services for consumer consumption must purchase products, raw materials, and services from other companies to create their products. These vendors must also procure goods and services. This cycle continues until all the money is spent outside of the specified region's economy. There are three types of effects measured with a multiplier: the direct, the indirect, and the induced effects. The direct effect is the known or predicted change in the local economy that is to be studied. The indirect effect is the business-to-business transactions required to satisfy the direct effect. Finally, the induced effect is derived from local spending on goods and services by people working to satisfy the direct and indirect effects.

- **Direct effects** take place only in the industry immediately being studied.
- **Indirect effects** concern inter-industry transactions. Because Boston Children's Hospital is in business, it has a demand for locally produced materials needed to operate.
- **Induced effects** measure the effects of the changes in household income. Employees of Boston Children's Hospital and suppliers purchase from local retailers and restaurants.
- **Total Economic Impacts** are the total changes to the original economy as a result of the operations of Boston Children's Hospital (i.e., Direct effects + Indirect effects + Induced effects = Total Economic Impacts).

What methodology was used in this study?

IMPLAN (IMpact analysis for PLANning) data and software were used. Using classic input-output analysis in combination with regional specific Social Accounting Matrices and Multiplier Models, IMPLAN provides a highly accurate and adaptable model for its users. The IMPLAN database contains county, state, ZIP code, and federal economic statistics, which are specialized by

region, not estimated from national averages, and can be used to measure the effect on a regional or local economy of a given change or event in the economy's activity.

What is employment impact?

Employment impact measures the direct employment (employees, staff, physicians, administration) plus additional employment created in the economy as a result of the operations of these organizations.

Indirect employment impact refers to other employees throughout the region that exist because the hospital and its employees make purchases from other businesses who in turn hire employees to fulfill the increase in business. In other words, jobs that support the needs of hospital workers – city services (police, fire), employees at local hotels and restaurants, clerks at local retail establishments, and residents employed by vendors used by the hospital.

What is included in the tax impacts?

Direct tax dollars include sales taxes and net corporate income taxes paid directly by the institution to the state, while indirect taxes include taxes paid to the state by vendors that do business with the hospital. While some hospitals are not-for-profit and do not pay direct taxes, all organizations regardless of their status create indirect tax payments to the state and local governments.

How does this impact compare to that of a typical office building?

Tripp Umbach studied the identical spending patterns for a similar-sized office building and the impact of the operations was very similar. However, when looking at the indirect and induced impacts, the impact that a medical office generates by bringing visitors and patients and their spending creates a much higher value to the local economy.

Is this a one-time impact or does the impact repeat each year?

The results presented in the economic impact studies are generated on an annual basis, with the exception of the construction impact which is only valid during the construction project.

The economic impact in future years can either be higher or lower based on number of employees, students, capital expansion, increases in external research and state appropriations.

What are Tripp Umbach's qualifications to perform an Economic Impact Study for Boston Children's Hospital?

Tripp Umbach is the national leader in providing economic impact analysis to leading healthcare organizations, universities, and academic medical centers. We have completed more than 150 economic impact studies over the past 20 years for clients such as The Pennsylvania State University, The Ohio State University, The University of Washington, The University of Iowa, The University of Alabama at Birmingham, the Cleveland Clinic, The University of Florida Health Shands Hospital, The University of North Carolina Hospitals, The University of Pennsylvania Health System, The University of Pittsburgh Medical Center, and The Ohio State University Medical Center.